

Amendment
U.S. Patent Application Serial No. 10/780,883

IN THE SPECIFICATION:

Please amend the specification as follows.

Please replace the paragraph at Page 8, Line 8 to Page 9, Line 1 with the following paragraph.

-- Control unit 40 may employ various displays, buttons, indicators and/or switches. An exemplary alternative control unit is illustrated in Fig. 3B. Specifically, the control unit includes an LED display 43, start button 44, display value or re-read button ~~45~~ 47, a power button ~~47~~ 45 and a series of indicators or LEDs 49. Display 43 is preferably implemented by a conventional light emitting diode (LED) type display and is disposed toward the upper end of control unit housing 41. The display may display speed values with a maximum of three digits (e.g., including values with a decimal point). Start button 44, power button 45 and display value button 47 are disposed adjacent each other below display 43 and may be implemented by any type of button or momentary switching device. The power button enables power to the control unit, while the start button prepares or resets the device to conduct a measurement. Since an LED display typically has greater power consumption than an LCD display, a nine volt type battery is preferably employed to power the control unit. Further, the control unit and LED display may each power down after respective predetermined time intervals (e.g., five minutes for the control unit and five seconds for the display) to conserve power. In this case, the control unit maintains the measurement after the display power down and during the remainder of the control unit predetermined time interval, where the measurement may be displayed by

Amendment

U.S. Patent Application Serial No. 10/780,883

depressing display value button 47. In addition, power button 45 may be depressed after expiration of the control unit predetermined time interval to conduct a new measurement. Indicators 49 are preferably implemented by light emitting diodes (LEDs) and are each associated with a corresponding detector 24. The indicators are disposed between the display and buttons 44, 45, 47 and indicate the proper operation of detectors 24, where the indicators are initially illuminated and subsequently individually disabled in response to a corresponding detector sensing the golf ball. Thus, the successive disablement of the indicators serves to display the progress of the golf ball through the device passage.--

Please replace the paragraph at Page 9, Lines 2 - 26 with the following paragraph.

-- An exemplary control circuit for control unit 40 (Fig. 3A) is illustrated in Fig. 4. It is to be understood that the exemplary control circuit may be modified to accommodate control units with various displays, buttons, switches and indicators (e.g., Fig. 3B, etc.). Specifically, control circuit 70 includes a microcontroller or processor 50 and display 42. A power source 51 provides power to the control circuit and is preferably implemented by four double 'A' type batteries. The microcontroller or processor controls device 10 and is preferably implemented by an eight bit microcontroller. By way of example only, the microcontroller may be implemented by the ~~Motorola~~ MOTOROLA HC705KJI microcontroller including ten bidirectional ports and operating at four megahertz (MHz). Display 42 is preferably implemented by a three digit, seven segment liquid crystal (LCD) type display unit and includes a sensor indicator and a low battery indicator as described above. The display is coupled to a wave driver source 68 that generates a

Amendment**U.S. Patent Application Serial No. 10/780,883**

low frequency square wave (e.g., thirty-two Hertz) to drive the display. The display is further coupled to a least significant digit driver 54, an intermediate digit driver 58, a most significant digit driver 60, a decimal point driver 62, a sensor indicator driver 64 and a low battery driver 66. These drivers control corresponding digits and indicators of display 42 to display the measured speed value of a golf green and corresponding device conditions as described below. The intermediate and most significant digit drivers are further coupled to a control driver 56 that controls display of these digits. The digit drivers are each associated with a corresponding digit having a particular location within the display, where the quantities represented by the digits depend on placement of a decimal point. By way of example only and with respect to the speed value shown in Fig. 3A, least significant digit driver 54 controls the display digit representing tenths, intermediate digit driver 58 controls the display digit representing ones or units, and most significant digit driver 60 controls the display digit representing tens. However, the digits controlled by these drivers may represent any quantities (e.g., tenths, hundredths, ones, tens, hundreds, etc.).--

Please replace the paragraph at Page 14, Lines 15 - 24 with the following paragraph.

-- The low battery indicator is controlled by low battery driver 66. The ~~microcontroller~~ microcontroller basically monitors a voltage divider circuit (e.g., including a resistor 83 arranged in series with a parallel arrangement of a resistor 84 and a capacitor 86 as viewed in Fig. 5) coupled to power source 51. When the microcontroller senses a low level signal on a microcontroller input (e.g., PB2 as viewed in Fig. 5) relative to a threshold, the microcontroller

Amendment**U.S. Patent Application Serial No. 10/780,883**

transmits a high level signal on a microcontroller output (e.g., PA7 as viewed in Fig. 5) that enables low battery driver 66 to display the low battery indicator. The control circuit components may be implemented by any conventional or other devices and may be arranged in any fashion. The component characteristics (e.g., resistance, capacitance, etc.) illustrated in Fig. 5 are exemplary, where the circuit components may include any desired characteristic values.--